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THE MEMPHIS YELLOW FEVER EPIDEMIC OF 1879.[1]

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THE appearance of yellow fever in Memphis during July last and the results which have followed its spread have attracted, perhaps, more attention than those of any epidemic of the same magnitude which has ever occurred in this country. The causes of its outbreak involve questions of profound interest, not only to the citizens of Memphis and country immediately adjacent, but to the entire Mississippi Valley, whose feelings of security and vast commercial and social relations have been so materially threatened or interfered with by its reappearance in our very heart. It is of particular interest to the American Public Health Association, to whom the people are beginning to look as the body which gives direction to legislation pertaining to public hygiene. The question of importation or of local origin is not definitely settled by the resident profession (each side has its advocates), nor am I myself satisfied as to the date and exact locality of the appearance of the first case. In every epidemic of yellow fever which has preceded this one, there has been no trouble in tracing the disease to direct importation. Similar questions arose with the epidemic of yellow fever in New Orleans last year. (See article by Dr. Jones in New Orleans *Medical and Surgical Journal* for March, 1879.)

The first case was reported to the health office on the 8th of July. The presumption is that the patient had been sick at least four days before death. An autopsy proved beyond question the nature of the disease. On the morning of the 10th a number of suspicious cases were reported, five of which proved to be yellow fever. These six cases were in three distinct localities in different wards of the city. The first one reported was in the sixth ward, No. 204 Desoto Street (Mulbrandon); three at one house in the tenth ward, at No. 425 Wellington Street (Judge Ray's), both in South Memphis, and two at one house in the eighth ward, No. 55 Bradford Street (Tobin's), in the extreme northeastern portion of the city, at least a mile on a direct line from either of the other two.

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[1] **Read before the American Public Health Association at Nashville, November 20, 1879.**

Two of these cases died during the night of the 9th. They were not reported to the health office earlier than the morning of the 10th. The physicians in attendance seemed not to have been sufficiently confirmed in their diagnosis of yellow fever to justify them in reporting these as such sooner. There had been no known communication between any of these cases. They were among people who had neither business nor social relations with each other. If we judge from the clinical history of the cases, each must have contracted the disease about the same time. One died on the afternoon of the 9th of July, two on the night of the 9th. The three were visited by different physicians, who at the time were not thrown together professionally; consequently it is not reasonable to suppose that the infection was conveyed from one to the other, nor is there evidence to prove that they contracted the disease from the same point about the same time. I am strengthened in this opinion from the occurrence of cases later in the summer and fall within the city and suburbs, when the infection could not be traced to direct communication with the sick, and where very scrupulous precautions were taken to prevent contagion. One death took place on the night of July 8th, at 81 Clay Street, in the tenth ward, in the neighborhood of the cases first reported (at 425 Wellington Street, Judge Ray's), and which was classed under the head of suspicious cases, but was treated as malarial fever. The attending physician afterward stated as his belief that it was yellow fever. This belief was confirmed by several parties contracting the disease a few days after the death occurred, who lived in the immediate neighborhood, at 86 Clay Street, and were with the party while sick. Error of this kind, if there was one, has repeatedly happened in the beginning of epidemics of this disease in the practice of experienced physicians. The gentleman above referred to may be justly so classed, for his experience has been acquired from four epidemics, in one of which he was the subject of the disease himself. I mention this circumstance as one throwing some doubt as to the reported case on the 8th being the first which occurred. After the 10th no more cases were reported until the 15th, and two of these were people who lived at 86 Clay Street, just referred to.

The disease has appeared in houses in the suburbs which were infected last year, among people who had no direct communication with the sick this year, and who observed very rigidly local isolation. Whether the infection was in the houses, or in the furniture, bedding, carpets, clothing, etc., is an open question with me, though, if contracted from either, I am inclined to think it was from the latter. All claim that their houses were thoroughly ventilated and exposed to the cold weather of last winter; many that artificial means of disinfection were used.

The house, 204 Desoto Street (Mulbrandon's), sixth ward, and 425

Wellington Street (Judge Ray's), tenth ward, and 53 Bradford Street (Tobin's), eighth ward, in which the three first cases reported occurred, were unoccupied last year during the epidemic; consequently we cannot attribute the origin of those cases to house infection. I have it on credible authority that when Tobin and wife returned to the city, after the epidemic of last year, they purchased and used some second-hand bedding, and that some bedding and perhaps clothing were used in Mulbrandon's house which had been used the year before during the epidemic by relatives who died of the disease. Whether any means of disinfection was tried or not I am unable to state. In the City Hospital, an institution I had charge of, there was the most thorough infection of everything pertaining to it in the way of bedding, ward furniture, etc. All available means of disinfection were used, not only while the epidemic lasted, but afterwards, of wards and ward furniture of every character. No case has occurred there this year which can be justly attributed to the infection of last year, though many of the same articles are in use. While this circumstance does not prove that the infection could not be held over, it is at least strong evidence that goods once known to be infected can be disinfected.

I was informed by Dr. W. L. Coleman, an inspector of the National Board of Health, that he had proof of importation which, to him, was conclusive. I hope he will demonstrate it as a matter of fact. I have seen no report from him on this subject, if he has made one, nor from any one else; consequently I am not prepared to discuss the importation theory. Being not only officially interested in Memphis, but personally so from long residence, and, as a consequence, from social and business interest, I am very reluctant to believe the disease originated among us; but the evidences of local origin are to me so positive, and those of importation so negative, as far as I know them, that I am forced to the conclusion that the disease arose from the infection of last year, which remained dormant until the atmospheric conditions favored its development. If such is the case, it does away with the theory of some physicians that, under these circumstances, the disease loses its specific character, and will not reproduce itself, or that an epidemic can be produced only by fresh importation. [See conclusions of the Board of Experts, authorized by Congress to investigate the yellow fever epidemic of 1878, page 15, paragraph 21.]

If the disease was introduced here last June or July, as the case may be, from whence did it come? It is reasonable to assume that the National Board of Health would have been informed of its existence south of Memphis, or anywhere else in the country, if such had been the fact. At a convention of the Sanitary Council of the Mississippi Valley, held in Memphis, April 30th, it was agreed that all boards of health there represented should be promptly notified by cipher telegram of the appearance of the disease in the locality of either board. That cipher was never furnished me, and, consequently, I did not communicate the knowledge of the first case to the different boards, as agreed by the convention. The National and State Boards of Health were to be notified of the first case immediately by their respective resident members, Dr. R. W. Mitchell, of the former, and Hon. John Johnson, of the latter. How the report got into the press dispatches I do not know. The object of this cipher telegram was, as I understand, to give timely notice to those in authority to take such steps as they might think advisable towards quarantine.

Being an advocate of quarantine, as I am now, I insisted on the convention pledging itself to it under these circumstances. Fortunately the National Board of Health now assumes this responsibility, and will coöperate with any state, county, or municipal board of health which adopts and enforces its regulations and calls upon it. The past epidemic has demonstrated very conclusively the utility of this organization, in preventing the arbitrary and irresponsible local organizations known as "shot-gun" quarantines, the outgrowths of panic, which would be ridiculous were it not for the serious inconvenience they entail upon commerce and travel.

The experience of this epidemic, the first the National Board has had to deal with, has not only had the moral effect of allaying public apprehension, and given confidence in preventing the spread of yellow fever by the ordinary lines of transportation, both by river and rail, but has demonstrated the practicability of allowing commercial intercourse without serious impediment and very little inconvenience.

It is not reasonable to suppose that a perfect system of quarantine inspection of freight and passenger travel, especially under the impulse of harm from impending danger, could be enforced without some delay and annoyance. Defects which experience has developed will no doubt in due time be corrected, and the country in future will not only feel a sense of security which it has not heretofore had, but will enjoy the great practical good which must result from intelligent and efficient coöperation of an organized board of health system.

As soon as the disease was recognized all available means of disinfective isolation and depopulation were practiced, and for nearly a month the disease seemed, with the exception of a few cases, to be confined to the neighborhoods where it first appeared. This gave reason to hope that there would be no general epidemic over the city, and it was not until August 10th that formal announcement of a general epidemic was made. It was then impossible to say that any portion of the city was not infected, unless it was the ninth ward, or what is known as Chelsea, — a ward more isolated than any other, and occupied almost entirely by residences, many of which were vacated.

Yellow fever appearing as it did in July last at four known points (and perhaps others), in thickly populated neighborhoods in different portions of the city, at or about the same time, among a people susceptible to its influence, in an atmosphere favorable to its spread, disinfection and isolation alone, as heretofore practiced, could not be relied upon to eradicate, or, as technically termed, stamp it out. These means have failed repeatedly as a radical measure, when the disease has become firmly established under the above circumstances. (For stronger test of disinfection, see New Orleans *Medical and Surgical Journal* for March, 1879, article by Dr. Joseph Jones.) This year, in that city, these agencies seem to have proved more successful; perhaps the meteorological conditions were not so favorable to the spread of the disease, or the means for combating were better than before. The resident population there is not so susceptible as that of cities further north. While disinfection has proved inefficient heretofore in Memphis in stamping out the disease, not only in the last but also in the preceding epidemic, in both of which it was promptly and energetically practiced, I believe the disease can be eradicated by a thorough disinfection of household effects and infected places during the winter, and by a proper local sanitation. When this is accomplished Memphis, to have yellow fever again, must have it, as it had on every occasion previous to this one, by importation.

The disease may have been imported this year. If such was the case, the epidemic was, in my opinion, due to two causes, importation and local origin. The work of disinfection and destruction of infected goods was actively and persistently practiced by the local board of health from the date of the first death until August 16th. After that time, as per agreement between state and local boards of health at the McKenzie conference, the State Board assumed this duty, and with the assistance of the National Board prosecuted the work by the most liberal expenditure of disinfectants applied in what was thought to be the most approved methods. For a detailed account of this work reference is made to the official reports of Dr. J. W. Ross, inspector of the National Board of Health.

In August last, in response to a circular letter received from Dr. Turner, secretary of the National Board, inviting reports on the sanitary condition of Memphis and sanitary work being done there, I addressed him a communication, of which the following is an extract, and which is not irrelevant to this part of my subject: —

"As far as we are capable of judging from external appearances, Memphis at present is as cleanly as any city in the country of the same size; perhaps more so. There is not a public thoroughfare in or about the city that can be considered in an unsanitary condition, unless it is rom the decayed and decaying portion of the Nicolson pavement blocks The work of cleaning streets and alleys was commenced in February, immediately after the organization of the Board of Health, and this feature of sanitary work has never stopped. The sanitary condition of private houses, aside from the objectionable system of privy vaults, will compare favorably with other cities, North or South."

It is a questionable point with me whether these vaults had anything to do with the origin of yellow fever here this year, though in the absence of proofs of importation I am of the opinion that the appearance of the disease was due to influences from last year's epidemic.

Whether these influences were from the miasms of privy vaults, impure sewers, polluted soil, or from fomites of woolen goods and bedding which had been used by the sick of last year and not properly disinfected afterwards, I will not now discuss. The general impression of the profession here is that the disease had its origin among us, and I at present participate in that opinion. The work of local sanitation is in daily progress, and everything is being done that is justifiable at this season of the year, and can be done under the existing circumstances. The work of disinfection, not only of houses where yellow fever occurs, but of all privy vaults, is being performed under the immediate authority of Mr. John Johnson, member of the State Board of Health, as per agreements made between state and local boards of health at McKenzie August 16th. These vaults, many of which were emptied of their contents during the past winter and early spring, are now being disinfected with strong solutions of sulphate of iron and lime. The disinfection of bedding, clothing, carpets, and rooms in which yellow fever occurs is promptly and efficiently treated with zinc-iron solution and fumes of sulphur. Bedding and fabrics that are so soiled as not to be rendered harmless by this process are destroyed by fire in a furnace constructed for this purpose. These goods are first saturated with carbolic acid, and carried in covered carts from the houses where used to this furnace, which is located under the bluff near the river, and there destroyed by a process which is thought to prevent the spread of the infection from them.

The work of taking up a portion of the wooden pavement and replacing it with stone is now in operation, and will be continued as fast as circumstances admit until it is all removed. The wooden blocks from the street are burned in the furnace as any other infected material, thereby serving a useful end for fuel. It is intended, as soon as the weather is cold enough to justify the work, to have every privy vault in the city emptied of its contents and filled with earth. These are to be replaced by earth-closets when it is impracticable to connect with a sewer and use a water-closet. There are two things in which Memphis is defective in regard to sanitation, and all sanitary work is but secondary compared with these essentials. These are a proper underground sewerage and a more thorough surface drainage. The sewerage at present is so limited as to be totally inadequate to the necessity.

The topography of the ground is such as to facilitate the former, and afford a very perfect system were the means at command for the work. The latter would follow as a consequence when the contemplated system of paving is complete which is now in progress. The soil here is of a light, porous character, which facilitates sewerage ; consequently there exists in many localities an injurious soil saturation, which in some instances has rendered impure cisterns improperly constructed and in close proximity to the vaults.

The substitution of either dry earth or water-closets in place of the very objectionable system of vaults will be enforced at the expense of property owners this fall and winter, as rapidly as possible.

As so much has been published in various newspapers throughout the country, both editorially and by correspondents, about the neglect of sanitary work in Memphis, it is but simple justice to the present authorities briefly to refer to the condition of the city when the present government was formed.

The sanitary condition of Memphis was never as good as it should have been. With very good natural advantages, there has not been a proper system of sanitary work perfected to entitle it to a fair trial of resisting epidemic influence of any character.

The last epidemic of yellow fever was unprecedented in this locality, and all attempt at sanitary work worthy of mention was suspended during the epidemic until the following February. The Board of Health was disorganized by the death of Dr. J. H. Erskine, the health officer, and the illness of the president and secretary, Drs. Saunders and Brown, and when reorganized, after the epidemic, it did not receive that support which the necessities of the situation demanded. I suppose the neglect of this all-important work was due to the fact that those in authority anticipated what was then in contemplation, a radical change in the form of government, — that is, an abolition of the city charter by the state legislature, which convened in January, and perfected this change on January 29th. On the abolition of the charter a new government was formed, known as a legislative council, to administer the affairs of the city, now designated as the taxing district.

This legislative council was not organized until February 8th. (Thus causing an interregnum of about three weeks between the operations of the two governments.) It received none of the assets of the old corporation, nor did it assume any of its liabilities ; consequently, it commenced with nothing in its treasury, and with no immediate credit, except what was granted to it by the individual indorsement of its members. It formed its ordinances and organized the several departments of government as rapidly as practicable.

The Board of Health was organized late in February, and at once commenced sanitary work. I will not attempt to describe the unsanitary condition of the city at this time, — indeed, no practical good would result from it. Suffice it to say that for seven months, in a city with a population of forty thousand, no public work, for reasons above given, had been attempted, and very little by private parties. Consequently, for the new government to put the city in a thorough sanitary condition in the brief space of four months, for several weeks of which all work was suspended pending a decision of the supreme court as to the legality of its existence, was simply impossible. However, its members seemed impressed with the importance of sanitary reform, and were disposed to enforce the health ordinances and execute the orders of the Board of Health as far as practicable.

The sanitary condition of the city on the outbreak of the yellow fever in July, aside from the decayed Nicolson pavement, as far as could be judged from appearances, was as good, if not better than, it had ever before been. All the streets and alleys had been thoroughly cleaned up in February and March, and an efficient system of garbage carts, modeled after similar systems in other cities, for the removal of daily accumulations, was in successful operation. This kind of sanitary work had never before been tried in Memphis. In addition to this public work a great deal of sanitary work was done by private individuals, a system of inspection being enforced by the Board of Health, through a limited number of sanitary police detailed from the regular police force. In May the operations of the Board of Health were supplemented by an organization of citizens known as the Auxiliary Sanitary Association, with Dr. R. W. Mitchell, of the National Board of Health, as its chief sanitary adviser. This association exhibited commendable zeal in the work it undertook, and rendered some valuable assistance to the Board of Health. I will here take occasion to refer to an official communication of September 22d, published in the *National Bulletin of Health* of October 4th, and if possible disabuse the writer's mind of some erroneous impressions he seems to be under, or at least answer the charge he makes in the following paragraph, in speaking of Memphis: "Sanitation as there practiced has not in my judgment been directed with the intelligence and zeal her terrible lessons might have been expected to arouse. The opposition to the enforcement of rule No. 6, concerning cotton, and the tearing up of the Nicolson pavement during the epidemic, are quite in keeping with the removal of fever-poisoned refuse and night-soil during July last.

"Dr. Johnson, of the board, and myself deprecated this latter action during our visit in July last, and discountenanced the proposition then mooted to remove the Nicolson pavement before the advent of cold weather."

The only privy vault cleaning after the first of June was in those cases where it was thought absolutely necessary, and where disinfection and deodorization were practiced at the same time, and all night-soil was conveyed to the designated point on the river in air-tight barrels.

This work was being done, then, to this limited extent after a conference with Dr. Mitchell, of the National Board, who was actively coöperating with the local board through the auxiliary association.

On June 12th the Board of Health published an order forbidding any more work of this character unless by special permit, when it was done only in extreme cases, and then under police surveillance. In regard to the tearing up of the Nicolson pavement during the summer, none was done until August 29th, after the disease had become epidemic through the whole city, and then only on a portion of a street, along which there were warehouses or cotton sheds, with the exception of a few houses, which were but partially occupied. Consequently, this could have had no influence in inducing the outbreak of yellow fever in July, nor did it influence its spread after it did appear. In this connection I will here introduce a communication made by myself to the legislative council on this subject, which I presume elicited the comment made by the correspondent of the *Bulletin*:—

MEMPHIS, *June* 5, 1879.

HONORABLE LEGISLATIVE COUNCIL:—

GENTLEMEN: In compliance with your instructions to give you an opinion in regard to the danger involved to the public health in the removal of the Nicolson pavement on Madison Street and replacing it with stone, from Main Street to the Charleston depot, at this season of the year, I have the honor to submit the following:—

The sanitary condition of this street at present is perhaps worse than any other in the city, owing to the fact that so much of the present pavement is decayed and already displaced. The removal of this and replacing it with stone by the plan proposed does not, in my opinion, increase the liability to disease, as no grading of the street is proposed and the earth is not disturbed, the grade being already fixed. The space uncovered by the removal of the wooden pavement is to be recovered the same day, or very soon, by stone, and the wooden blocks burned immediately, or otherwise disposed of so as not to be prejudicial to health. Leaving out of consideration the imperative necessity for the improvement of the street for the commercial interest of the city, I do not think the sanitary condition of the neighborhood will be made worse while the work is being done, but will be materially improved after the work is completed. In view of these facts, the present very bad sanitary condition, owing to the decay of the wooden pavement, there being no necessity for interfering with the earth for the purpose of changing the grade, the rapid mode to be employed in replacing it with stone, the great sanitary advantage obtained after the work is done, and the imperative necessity for the improvement to the commercial in-

terest, I have no hesitation in recommending the immediate execution of the work. Respectfully, G. B. THORNTON, M. D.,
President of the Board of Health.

The imputation that this work could have created yellow fever in Memphis is too absurd to admit of discussion. That it may have developed endemic diseases, towards which there may have been a predisposition, or intensified any disease which did prevail, is possible, but in this instance there are no facts to prove that such was the case. When the circumstances as expressed in the communication are considered, I hold that the advice was justifiable; especially when there was but one of the cases, that of Mulbrandon's, at 204 Desoto Street, which occurred on one of the paved streets, the other two localities where the first cases were reported being distant several squares from the pavement, — one, Tobin, at 55 Bradford Street, on one of the most elevated positions in the city, and the other, Judge Ray, at 425 Wellington Street, a wide, sloping street, more in the suburbs, though within the corporate limits.

As to any opposition to rule 6, the legislative council was represented during the epidemic only by Chairman D. S. Porter, the other members being absent.

He, both personally and through the local board, coöperated with and supported every order of both National and State Boards of Health, and enforced their rules as far as practicable. Now that the epidemic is over there can be no just objection to stating that while those in authority at Memphis duly appreciate the efforts of the State and National Boards to do all in their power for the good of Memphis and the people of Tennessee and adjacent States, and make proper acknowledgment for such services, they mean no disrespect and do not criticise their action in any spirit of fault-finding when they state that the preservation of the yellow-fever contagium in baled cotton is a purely theoretical question which is not verified by preëxisting facts, and the onus of proof rests on those who raised the question to show one instance, after the amplest opportunities for doing so are given, where seed or lint cotton handled in an infected locality, by the ordinary means of ginning, baling, or compressing, has been the medium for the transmission or propagation of the yellow-fever contagium.

The estimated population of Memphis at the commencement of the epidemic, according to the reports of Colonel Cameron, superintendent of camps, was 38,400. My estimate was that it was rather over 40,000 than under. There were in the several camps adjacent to the city, within five to ten miles, 24,800. According to his report, the number of inhabitants was reduced by depopulation to 18,500, of which 14,500 were blacks. I herewith append a tabulated statement compiled from the records of the Board of Health, showing the number of cases reported, also the number of deaths. Prompt and active depopulation prevented a repetition of a similar epidemic to that of 1878.

CASES.

Months.	White.	Colored.	Total.
July	153	35	188
August	320	363	683
September	240	208	448
October	132	73	205
November	8	—	8
Total	853	679	1532

DEATHS.

Months.	White.	Per Cent.	Colored.	Per Cent.	Total.
July	52	33.9	5	14.2	57
August	134	41.9	43	11.8	177
September	116	48.3	43	20.6	159
October	65	49.2	15	20.5	80
November	12	1.50	—	—	12
Total	379	44.4	106	15.6	485[1]

A CASE OF CYSTOTOMY FOR CYSTITIS.[2]

BY J. RICHMOND BARSS, M. D., MELROSE, MASS.

P. M., aged forty-one, Irish, consulted me in May, 1874, with the following history: Formerly he had been a sailor, but for the past fifteen years had followed the trade of a mason and whitewasher. He had enjoyed good health, but in 1850 had a slight attack of gonorrhœa, and has always indulged freely in alcoholic drinks. From 1866 to 1872 he suffered from occasional attacks of pain in the region of the left kidney. In 1872, while whitewashing a ceiling, he felt a sudden desire to micturate, and on attempting to do so passed a large quantity of blood; this hæmorrhage continued for three days. Since that time has had no pain in the kidney, but frequent and painful micturition existed, and at last he noticed that the urine was thick and ropy. Early in 1874 he went to the Massachusetts General Hospital, where he remained three months, when his friends removed him to his home. I was then consulted, and found him very weak and passing large quantities of urine full of mucus; micturition frequent and very painful. He was placed on tonics, and the bladder was washed out morning and night with a solution of carbolic acid; the neck of the bladder very sensitive to the touch of the double-current catheter. Soon after this treatment was commenced I was taken ill, and lost sight of patient till 1877; during this time he was under the care of numerous regular and irregular practitioners. In 1877 he returned to my care; I examined him for stone with a negative result. Ordered a mixture of iodide of potassium and fluid extract of ergot. Two months later the patient reported that he could retain urine for half an hour at a time, but at this stage of affairs he went off on one of his periodical sprees and gave up all treatment. In March, 1878, I was sent for, and found him in bed suffering intensely, the bladder more irritable than ever, micturition frequent, — every two or three minutes, — with intense pain all along the urethra. He was temporarily relieved by opiates, but his condition remained the same for the next week, when he begged me to do something for him, as his life was a burden to him. He had gone through the whole list of customary remedies, every available thing had been tried in vain, the patient was sinking fast, and nothing remained but the possible chance of an operation. With a full appreciation of the danger of an operation, he readily consented, preferring death to the great agony he was suffering. On April 1, 1878, being etherized and placed in the position for lithotomy, in the presence of Drs. W. S. Brown, J. S. Clark, L. D. Gunter, and Mr. Edwin Prior, medical student, the patient was again carefully sounded for stone, with the same negative result. I then did the lateral operation for stone, cutting into the bladder on a grooved staff; the finger was swept around the bladder, but no stone or tumor could be detected; the bladder seemed very much thickened. The patient was placed in bed, and a subcutaneous injection of morphia given. Ten P. M., seven hours after operation. The patient says he has not been so comfortable for years; urine running freely from wound. Suppositories of morphia and belladonna to be given if he has pain. April 2d, A. M. Temperature 100° F.; patient comfortable. P. M. Temperature 105° F.; has had a very restless afternoon from urine getting into the urethra and paining him. Ordered 2.65 grammes of sulphate of quinine to be given in four doses, and opium p. r. n. April 3d, A. M. Temperature 100° F.; put in a rubber tube about the size of English XV. catheter. April 4th. Patient had a good night; operation from bowels; temperature normal; appetite good. April 10th. Tube in bladder works well, but occasionally a little urine finds its way into urethra and causes severe pain for a few minutes.

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[1] 31.7 per cent. This report is made up to include November 15, 1879.

[2] Read before the Middlesex East District Medical Society.

For the next month the patient was placed on tonics and generous diet, and the urethra left alone. The urine continued very alkaline and full of pus. Early in May I began to pass a catheter and wash out the bladder; various things were tried, including carbolic acid, nitric acid, boracic acid, nitrate of silver, etc., etc., but there was no improvement in the condition of the urine. I then placed him on benzoic acid, beginning with 1.00 gramme per diem, and gradually increasing to 6.00 grammes per diem. On the twentieth day of this treatment the urine became neutral, but on the slightest decrease in amount of acid it returned to its alkaline condition, and by this time it was beginning to disturb digestion and irritate the throat, so it was stopped.

In July, the fourth month after operation, the patient began to get out-of-doors, and finally returned to his trade, besides working in his garden and going to and from Boston in the cars, all the while wearing his tube, which was connected with a urinal attached to his leg. He was by no means a well man, for in spite of the long rest given to the urethra, whenever a little urine passed through it it caused severe pain for a few moments, and his urine was still very full of mucus. Yet his condition was very much improved, his appetite good, weight increased, and he was partially able to earn his living; on the whole, his life was rather a comfortable one. During the last eight months of his life he gave up all medication, and occasionally went on sprees; his urine continued thick, but his tube caused no inconvenience, and a month before his death he went to a picnic and joined in all the dances. August 24th I was sent for, and found the patient in bed, where he had been two weeks, suffering from severe pain in the region of the left kidney. Counter-irritation was applied with relief, but the quantity of urine decreased, and he complained of severe headache, and finally became delirious; two days before his death he passed about 30.00 grammes of urine. Jaborandi caused profuse diaphoresis, the perspiration smelling strongly of urine, and on September 2, 1879, he died. Unfortunately, the friends objected to a post-mortem examination, but at the last moment I obtained permission to examine the bladder; in attempting to remove the left kidney it broke down in my fingers, a mass of detritus and pus. The right kidney seemed normal in size and condition, but I was not permitted to take it. I obtained the bladder, however. Dr. S. W. Abbott, of Wakefield, who kindly examined the specimen, reports as follows: "The walls of the bladder were thickened and contracted. Right ureter atrophied and impervious. Left ureter large and pervious. Prostate of normal size. A small mucous tumor projecting into the urethra at the point where it leaves the bladder."

To sum up the case briefly: We have a man greatly addicted to spirit drinking, with a severe chronic cystitis and kidney disease of four or five years' duration, worn out by continual suffering, and brought to the lowest condition of exhaustion, relieved and made comfortable for seventeen months by the operation; a sufficiently encouraging result to lead us to hope that under more favorable circumstances a better result might be obtained, or at least, like tracheotomy, if it does not save our patient, it will enable him to die in comparative comfort. Surgical authorities, so far as I have been able to consult them, say little or nothing about this operation for such cases. Bryant, under the head of Ulceration of the Bladder, says: "It is a question, however, in the severer forms whether an incision into the bladder, as for lithotomy, would not be sound practice, the urine then flowing away as secreted, and a chance given to the bladder to recover itself; at any rate, the operation would give relief." Dr. Robert Battey, of Georgia, reported a case of Cystotomy for Cystitis in 1869. A writer in the *Medical Record* for December, 1872, says: "Dr. Powell, of the Rush Medical College, has advocated this mode of treatment for chronic cystitis in his teachings since 1866, and considers it a standard operation, which need not be left as a *dernier ressort*, but which may be practiced with much benefit early, before the vesical walls become much changed by inflammation."

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RECENT PROGRESS IN DERMATOLOGY.

BY JAMES C. WHITE, M. D.

Microscopical Studies on Cutaneous Inflammation. — Dr. Heitzmann, of New York, in his paper presented at the last meeting of the Dermatological Association, offers,[1] as the results of his studies, the following conclusions: —

(1.) In epithelium the first step of the inflammatory process consists in an increase of the living matter both in the protoplasmic bodies and between them; the former produces the coarse granulation of the epithelia, the latter the thickening of the so-called "thorus" in the cement substance. Any particle of living matter, both in the epithelia and between them, through continuous growth, may lead to a new formation of epithelial elements, with the termination in hyperplasia of epithelium (psoriasis, squamous eczema, horny formations, etc.).

(2.) In connective tissue the first manifestation of the inflammatory process is the dissolution of the basis substance and reappearance of the protoplasmic condition. By this process and the new formation of medullary elements, which may start from any particle of living matter, the inflammatory infiltration is established. The sum total of the inflammatory elements, which remain united with one another by means of delicate offshoots, represent an embryonal or medullary tissue. If the new formation of medullary elements be scanty, the resolution is accomplished by re-formation of basis substance (erythema, erysipelas). If, on the contrary, the production of medullary elements be profuse, a new formation of connective tissue will result, hyperplasia (scleroderma, elephantiasis, etc.).

(3.) The plastic (formative) inflammation may be accompanied by the accumulation of a larger amount of a serous or albuminous exudation in the epithelial layer (miliaria, sudamina, herpes), or in the connective tissue of the derma (urticaria). In both instances complete resolution will ensue.

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[1] Archives of Dermatology, October, 1879.

(4.) Suppuration in the epithelial layer of the rete mucosum is produced by an accumulation of an albuminous or fibrinous exudation, by which a number of epithelia are destroyed, and by new formation of pus corpuscles from the living matter of the epithelial elements themselves. Epithelial suppuration heals without the formation of a cicatrix (eczema madidans and pustulosum, impetigo, pemphigus, variola).

(5.) Suppuration in the connective tissue of the derma results from the breaking apart of the newly formed medullary elements, which, being suspended in an albuminous or fibrinous exudation, now represent pus corpuscles. Pus is a product of the inflamed connective tissue itself, and always a result of destruction of that tissue. Suppuration of the derma invariably heals through cicatrization (abscess, furuncle, acne, ecthyma, variola).

Prickly Heat. — Dr. G. H. Fox, of New York, publishes,[1] in a popular account of this affection, some simple rules for its management, which will be found generally efficacious. In his opinion, the predisposing causes are prolonged and excessive summer heats, an injurious diet, and a disregard for cleanliness. The exciting causes are unnecessary clothing, and perspiration allowed to remain upon the skin. By uncleanliness he does not mean merely a lack of soap and water, but that mistaken notion of comfort and propriety which leads to the disuse of flannels in warm weather; for without a thin and porous texture in contact with the skin, no one can expect to be dry and clean. A fleshy person perspires freely, and the linen or cotton worn next the skin becomes soaked by perspiration, and acts like a poultice to produce diffused congestion with follicular inflammation, or becomes saturated with sour perspiration, which macerates the epidermis, and irritates the peripheral nerves. The chief end of treatment should therefore be to keep the skin dry, or, in other words, to cause the perspiration to be absorbed as soon as secreted, which will both prevent and cure the eruption. He advises the use of an alkaline diuretic and an absorbent powder. To supply these from the resources of the household he often advises starch powder to be used locally, and cream-of-tartar water to be drunk freely. In place of the latter a whey may be made by adding a half ounce of the bitartrate of potash to a quart of milk, boiling, and straining out the curd, or a pleasant effervescing drink by mixing half a teaspoonful of bicarbonate of soda with half a glass of lemonade. Even when the skin is already severely inflamed a cool bath and a little stimulation of the kidneys will immediately lessen the hyperæmia and check the intense pruritus. Lotions are rarely needed, unless a secondary eczema is established.

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[1] The Physician and Pharmacist, May, 1879.

Exfoliative Dermatitis. — In a paper[1] on this subject, by Dr. E. B. Baxter, of London, he presents its most important points in the following propositions: —

(1.) General exfoliative dermatitis is characterized by the two features embodied in its name: universal or very extensive distribution; profuse and continuous shedding of all epidermic structures. The subordinate characters, on which it has been attempted to found distinct categories, are none of them constant. Thus, the state of the cutis may vary from simple hyperæmia to brawny infiltration; the nails may escape or be completely destroyed; the surface may be quite dry, or there may be some cracking and oozing in the flexures, or the papillæ may ooze a little fluid beneath the epidermic squames, etc.

(2.) General exfoliative dermatitis may occur as a substantive disease in a previously healthy subject. It may, and commonly does, occur in persons suffering from, or liable to, certain constitutional forms of skin disease. When any one of these maladies becomes generalized, invading the whole, or nearly the whole, integument, it tends to merge its special features in those common to all varieties of exfoliative dermatitis, whether of primary or secondary origin.

(3.) The rare disease known as pemphigus foliaceus cannot always be distinguished from general exfoliative dermatitis supervening on other skin affections. That relapsing pemphigus tends, however seldom, to pass into this form is an additional argument in favor of its being related to the "dortrous group;" pemphigus foliaceus being to ordinary pemphigus what exfoliative dermatitis is to ordinary eczema or psoriasis.

(4.) There is reason to believe that the pityriasis rubra of Hebra is only a chronic form of exfoliative dermatitis, with the most acute varieties of which it is connected by a series of transitional phases.

(5.) When allowed to run its course without interference, general exfoliative dermatitis often tends towards a fatal issue. This may be speedy or the reverse. In the former case, it is preceded by rapid emaciation and loss of strength, with diarrhœa, albuminuria, fever of a remittent type, and pulmonary œdema; in the latter, death may be caused by some intercurrent malady.

(6.) The prognosis is always grave in general exfoliative dermatitis (especially in children). Its gravity appears to be proportionate to the extent of surface involved; to the depth to which the skin is infiltrated; to its rate of progress; to the resistance offered to specific remedies. It should be borne in mind that even in the most chronic forms (pityriasis rubra of Hebra) exacerbations may occur during which the patient's life is placed in jeopardy.

(7.) As regards treatment, it is certain that oily applications are to be preferred to baths and lotions. Internally, the administration of quinine in the more acute, of arsenic in the more chronic, phase of the affection has often proved beneficial. In certain cases, however, the disease resists the latter remedy. Neglect to remove secretions from under the scales is probably one cause of the occasional outbreak of multiple boils, and even abscesses.

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[1] British Med. Journal, July 26, 1879.

Bullous Eruption from Iodide of Potassium. — Professor Hyde, of Chicago, read a paper[1] upon this subject at the recent meeting of the American Dermatological Association, in which he gave not only the clinical history of a case observed by himself, but also a tabular comparison of the most marked features in all the instances of this rare affection hitherto recorded. His patient was a child eight months old, who in addition to an eczema of the head displayed, upon the limbs mostly, numerous vesicles and bullæ, varying in size from a pin-head to a pigeon's egg, and which were somewhat irregular in shape. They showed no disposition to rupture, but were firm and persistent, and contained a semi-gelatinous substance resembling boiled sago. The bullæ were of a dark purplish shade when fully developed, but the smaller ones, which contained a thick serum, were yellow or reddish-yellow in color. The skin surrounding them was perfectly normal in appearance. The patient had been taking the drug, 0.30 gramme daily, for a month preceding the eruption of the bullæ. They disappeared shortly after the discontinuance of the iodide, as in all the other cases recorded. Dr. Hyde draws from his study the following practical conclusions: that in eczema, where a distinctly vesicular or bullous eruption becomes suddenly apparent, the possibility that the iodide has been previously given should be carefully estimated; and that it is quite probable that the rare vesicular and bullous lesions occurring in syphilis may be induced by the same cause.

Hydroa. — Alfred Sangster, M. B., of London, presented a paper[2] at the recent meeting of the dermatological section of the British Medical Association, in which he described the various affections commonly classed under this title. The characteristic symptom seemed to be an erythematous eruption tending to vesicate. The latter preferred certain regions, especially the back of the hands and fore-arms. There was a tendency for the eruption to be symmetrical, although this was not constant. The character of the eruption varied according to certain unknown disturbing influences, either spreading slowly and centrifugally from primary centres, and giving an appearance of discrete spots, or advancing rapidly, and causing the well-known gyrate and marginate pattern by confluence. The process appeared to vary in intensity periodically; and associated with this remittent tendency occurred vesication, either taking the form of a central vesicle or bulla, or that of a collection of closely-set vesicles on the advancing erythematous margin. Although the extremes of the series differed vastly in appearance, the whole of the cases were almost clinically identical. It was contended that Bazin's hydroa had no real existence as a separate disease, any more than the similar, if not identical, condition, herpes iris; that they were both accidental developments of erythema multiforme; and that the continued use, in the substantive form, of the term hydroa was not only misleading but illogical.

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[1] Archives of Dermatology, October, 1879.

[2] British Med. Journal, August 23, 1879.

Histology of Psoriasis. — Professor Neumann, of Vienna, publishes[1] the results of his new investigations into the anatomical changes in this affection. In addition to the enlargement of the papillæ and great thickening of the epidermal layers, previously determined, he discovers extensive hyperplasy of the epidermal cells surrounding the hair structures and the several ducts within the deeper layers of the corium. The hyperæmia which accompanies the excessive cell formation is essential to it, and in direct proportion to it.

The Application of Salicylic Acid in Psoriasis. — Preisman recommends[2] an alcoholic solution of this acid (1–16) for the removal of the scales in psoriasis. A medium-sized wad or swab of linen is to be dipped in this and rubbed into the affected skin several times. The scales fall rapidly off, and after a short rubbing we accomplish in a few minutes what hours of washing and bathing will scarcely do, — the exposure of the smooth red corium. To this we may then directly apply our remedies, — oil of cade, chrysophanic acid, etc. He calls this the polishing process. He speaks highly also of the use of the same solution in the treatment of chloasma and freckles, and as an antipruritic remedy. It has the additional value of possessing no unpleasant odor.

Psoriasis as a Dermatomykosis. — Professor Lang, of Innsbruck, publishes[3] a sequel to his former paper[4] upon this subject, in which he states that he has discovered the fungus which the natural relations of the disease had convinced him should exist in it. If one removes as far down as possible the scales of the eruption a very thin pellicle is reached, through which the redness of the papillæ is visible. If this be carefully peeled off there are to be seen in it under the microscope, scattered and grouped, the spores and threads of a fungus, which he proceeds to describe. These he maintains have been ordinarily overlooked in such investigations, owing to their delicacy of form and the want of color of their protoplasm. He regards the fungus as unlike those hitherto observed in the human skin, and proposes for it the name epidermidophyton. He believes that it occurs as frequently in psoriasis as the trichophyton in tinea tonsurans.

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[1] Wiener medic. Jahrbücher, Jahrg., 1879.

[2] Wiener med. Presse, 1879, No. 16.

[3] Viertelj. für Derm. und Syphilis, vi. Jahrg., 2 and 3 Heft.

[4] JOURNAL, December 5, 1878.

Treatment of Chronic Palmar Eczema. — Dr. Lieving, of London, offers[1] the following plan of treatment in this most obstinate affection. Lead ointment, and Hebra's unguentum lithargyri, are good remedies, but in all cases the hand must be rested, covered, washed little, and the ointment constantly applied. In the most obstinate cases, where the cuticle is extremely hard, brittle, thick, and cracked, ointments produce no effect, and means must be adopted to get rid of the outer cuticle, which entirely prevents any chance of cure. This is best done by the constant application, night and day, of a lotion of liquor potassæ (from two to four drachms of liquor potassæ to eight ounces of water is usually strong enough). The hand must be enveloped in rags kept constantly wet with the lotion, and covered with thin gutta percha, or something of the kind. This treatment must be continued until the cuticle is perfectly white and macerated, when it will peel and rub off readily. The process may require to be repeated until the epidermis is reduced to its natural thickness, and is thoroughly soft; the skin may then be treated with ointments and glycerine in the usual way. Lastly, chronic eczema rimosum of the hand is one of the few forms of eczema in adults that is often benefited by the internal use of arsenic.

Incomplete Vitiligo. — Dr. Atkinson, of Baltimore, reports[2] a case of remarkable decolorization of the skin of a mulatto, the loss of pigment never amounting to complete leucoderma, even in the central parts of the affected patches. Most interesting was the establishment of the restoration of normal pigmentation upon the backs of the hands under Dr. Atkinson's direct observation, an occurrence often claimed by patients but rarely confirmed by reliable observers.

Treatment of Rosacea. — M. Brault gives[3] the treatment of this affection as practiced by M. Hillairet for the last eight years. In the morning he causes the face to be washed with very warm water, or a vapor douche to be directed against the same for four or five days in succession. In the evening the face is bathed with the following solution: distilled water 250, sublimed sulphur 30, and camphorated alcohol 8, 10, 12, or 15 grammes. In some cases a little ether is added with benefit. The light deposit of sulphur and camphor is left upon the skin until morning, when it is washed off, and the following ointment is applied to soften the skin: lard 30, oxide of zinc two to three grammes. Improvement is noticeable on the fourth day in a diminution of the papules and the redness, but treatment is to be continued for two or three months, and until complete disappearance of the redness. Subsequently the skin should be washed twice a day in warm water.

(To be concluded.)

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[1] British Medical Journal, July 5, 1879.

[2] Archives of Dermatology, October, 1879.

[3] Annales de Dermatologie et de Syph., t. x. p. 272.

THE PUBLIC HEALTH ASSOCIATION.

FIRST DAY.

THE seventh annual meeting of the American Public Health Association was opened in Nashville on November 18th. The first day's proceedings were chiefly noticeable for the address of the president, Dr. J. L. Cabell, which consisted mainly in a description of the origin and work of the National Board of Health. Among the points less familiar to our readers we find an interesting account of the work of the Havana commission, which was composed of Dr. S. E. Chaillé and Col. L. S. Hardee, C. E., of New Orleans, Dr. John Guiteras, of Philadelphia, and Surgeon G. M. Sternberg, United States army, who were instructed: —

(1.) To ascertain the actual sanitary condition of the principal ports in Cuba from which shipments are made to the United States; to determine how their sanitary condition can be made satisfactory; and especially to determine what can be done to prevent the infection of the shipping of these ports by yellow fever.

(2.) To obtain information with regard to the condition which may be supposed to determine the endemicity of yellow fever in the ports of Cuba.

(3.) Another desideratum was to increase existing knowledge as to the pathology of yellow fever.

(4.) The commission was further instructed to endeavor to find some means of recognizing the presence of the immediate cause of yellow fever other than the production of the disease by the human subject.

The first two divisions of the general subject were undertaken by a committee consisting of Dr. Chaillé and Colonel Hardee, who have collected a vast amount of valuable information from not less than forty-five places in the island, including the fifteen ports of entry, several of which, in addition to the principal ports of Havana and Matanzas, were visited in person by Dr. Chaillé. Most of this information, though highly important, is more of a commercial than of a scientific nature. It was ascertained that the disease has prevailed in Havana every year since 1761, and it is alleged that it was imported from Vera Cruz.

In relation to the shipping, Dr. Chaillé satisfied himself that the poison did not originate in it, but was brought from the shore, and avers that the facts to be given in his report will bear him out in this assertion. He cites among other evidence the fact that while yellow fever constantly prevails in the port of Cardenas the shipping is almost entirely exempt from infection, which he ascribes in part to the large size of the harbor and its excellent ventilation, and in part to the fact that the anchorage is at some distance from the shore.

Finding that the provisions of the act of June 2, 1879, for securing the best sanitary condition of vessels in the ports of Cuba destined for the United States could not be enforced effectually without the consent and aid of Cuban authorities, and that this had been withheld, he recommends an attempt to attain our object by means of an international code to be agreed upon by all the maritime powers interested in this matter. The pathological investigations were confided to Dr. George M. Sternberg, of the army, and Dr. John Guiteras, of Philadelphia.

Numerous autopsies and dissections were made, and tissues obtained directly after death were at once put up in suitable preservative liquids and brought to the United States for thorough and careful study. This investigation will be carried on under the personal supervision of Dr. J. J. Woodward, the eminent pathologist of the Army Medical Museum, who has been requested to present a special report upon the subject.

Dr. Cabell says: "The pathological histology of the blood of yellow fever patients was the subject of very earnest and patient study by Dr. Sternberg, with the result of discovering a constant lesion of the white corpuscles, which, however, with a proper reserve, he hesitates to announce as peculiar to yellow fever until he shall have had an opportunity of extending his observations to other fevers and allied affections. He is now and will for some time be engaged in making parallel observations on the blood of persons suffering from various diseases, especially febrile diseases. The lesion in question is a fatty degeneration of the white corpuscles not heretofore described, and is well exhibited in his numerous and beautifully executed micro-photographs of the blood of yellow fever patients. His careful observations with the best instruments determined no other positive fact which was new to science, but they have an important negative value in disproving the assertions of other observers. Dr. Sternberg has also photographed certain crystalline bodies in the air taken from various localities in Havana, notably in the wards of the military hospitals under and above the beds of yellow fever patients, which he is now investigating in the same manner by comparison with the forms found in the air of hospitals and other places in various parts of the United States. If it be found that these crystals have not heretofore been described, and that they are peculiar to the air of places infected with yellow fever, the observation will be an interesting acquisition to science, and may possibly lead to valuable results.

"In directing the commission to endeavor to find some means of recognizing the presence of the immediate cause of yellow fever other than the production of the disease in the human subject, the board was well aware that the problem of finding such a physiological test of the yellow fever poison, with a view to its isolation and identification in any case, and to its propagation by culture experiments if it should prove to be a *contagium vivum*, might and probably would be found to be insoluble. Nevertheless, it was considered proper to authorize and instruct the commission to institute such experiments as have resulted in valuable discoveries when applied to some other infectious diseases, notably the splenic fever, found by Koch to be caused by *bacillus anthracis*."

Among the results of the work of this commission which give promise of future benefits may be mentioned the manifest and freely acknowledged influence which it exercised upon the government and medical profession of Cuba in arousing them to a lively interest in the ætiology and prevention of yellow fever. The Cuban authorities were at once prompted to appoint an auxiliary commission to aid ours, and has since made this auxiliary commission a permanent one.

The second step taken by the board with reference to its required duties to obtain information upon all matter affecting the public health was to instruct the standing committee on State and Municipal Sanitary Legislation to collect and collate the sanitary laws of the several States, including not only the statutes, but the decisions of the courts on questions involving public hygiene. This important work has been conducted by a competent member of the bar in Boston, R. C. Lincoln, Esq., under the direction of Dr. Bowditch, chairman of the standing committee.

That which relates to the effects of disinfecting agents upon the causes of the infectious diseases, or the intimate nature of the process of disinfection, has been undertaken, under the general direction of Dr. C. F. Folsom, by Dr. W. S. Bigelow, of Boston, assisted by Dr. H. P. Bowditch, professor of physiology, and Dr. Wood, professor of chemistry, of Harvard University.

Upon the question of refrigerating ships the president remarks: "I am free to say that in my judgment the affair of the Plymouth as reported by a naval commission has not decided the question under consideration, and that, having placed on record my vote as one of the board in favor of the expediency of making the experiment by means of Professor Gamgee's plan, I am of the same opinion still, and therefore regret that untoward circumstances have prevented the application of the experimental test. I will only add, in further vindication of the propriety of the action taken by the board, that refrigeration was only a part, and but a very small part, of the appliances to be put in requisition by Professor Gamgee's plan. He proposed to provide the following means: —

"(*a.*) Deliquescent chlorides, and especially the chloride of magnesium, to remove from the air all molecular matter and moisture. The air will be then rendered *absolutely* and *optically* pure, etc.

"(*b.*) A close chamber, to be raised to any desired temperature for disinfecting purposes, to purify clothing, etc.

"(*c.*) An entirely new system of temporarily substituting for the air of a ship antiseptic gases, measured, weighed, and introduced as liquids in the most inaccessible parts, and which, passing spontaneously from the state of liquid to that of gas, will permeate everywhere, and, if necessary, be made to penetrate under pressure.

"(*d.*) Electrical apparatus for lighting and safely inspecting every part of an infected vessel. . . . .

"(*e.*) Medicated or disinfecting baths, or chamber, in which convalescent people or persons exposed to contagion may be purified before landing.

"(*f.*) Apparatus for superheating and with an entirely novel method of regulating superheated steam, if ever used in disinfecting a ship which has been stripped for the purpose, so as to maintain safe temperatures and prevent firing or other inconvenience."

Among the lessons taught by this summer's experience, he cites a few propositions as having been established on evidence more or less satisfactory: —

(1.) That in yellow fever, as in most other infectious diseases, unrestricted family intercourse is one of the most fruitful means of spreading the seeds of the infection, and by this means the disease may be carried from a focus of infection to a previously uninfected locality, where a new focus may be developed.

(2.) That when prompt notice is given of a case thus imported into a previously uninfected place proper measures energetically employed will generally suffice to arrest the spread.

(3.) That even when the outbreak has assumed the dimensions of an epidemic it is possible, by measures rather difficult of execution, and requiring not only the strong arm of the law and the use of the public funds, but also the willing consent of the population, to stamp out an existing epidemic by removing all the unacclimated portion of the population and preventing the introduction of any such material from without. Such a measure, practically impossible for large cities or towns except in a very partial degree, may be entirely feasible for villages and towns of moderate population.

(4.) That a national system of inspection and disinfection, which is not seriously obstructive to commerce and travel, may be as effectual a security against the introduction of yellow fever to our ports of entry and to inland towns as the costly and cruel plan of absolute non-intercourse. In a word, the experience of the National Board of Health during the summer is in accord with that of the quarantine authorities of New York, and justified the use of the term quarantine to signify "the administration employed to determine the presence or absence of the causes of contagious and infectious diseases in vessels arriving at a port, and the securing, if present, their removal or destruction, and does not imply detention for any specified time, nor for more time than is necessary for the above purpose."

Colonel Waring, in an interesting paper on the Drainage and Sewerage of Cities, says: "The experience of Holland, in the practice of drainage, indicates a complete relief for the natural disadvantages even of the city of New Orleans, of which the cost would be quite insignificant as compared with its benefits.

"Many of our riparian towns, dependent upon high-lying water as the outlet for their drainage, or, like Chicago and Milwaukee, delivering their foul drainage into streams whose contamination means the contamination of the town itself, may find their only practical relief by means of an artificial outlet.

"I trust that, as I am neither a Southerner nor a physician, I may be excused for attaching more importance than many of you probably do to the proper drainage and cleansing of a city, and to the proper disposal of its outflow, than to any system of quarantine. My knowledge of the history of the yellow fever epidemics in this valley is infinitely less than yours; but I feel warranted, and I take my warrant from the history of the plagues which devastated the filthy mediæval cities of Europe, and from my own knowledge of the want of cleanliness and want of drainage in the city of Memphis, in venturing the suggestion that even that fever-smitten town may be made an impossible field for the invasion of yellow fever in an epidemic form."

SECOND DAY.

In the absence of Mr. Elliot C. Clark, Dr. C. F. Folsom read, by request, that gentleman's paper on the City Scavenging of Boston.

The work devolves upon a committee of five members of the city council, chosen annually; they control the expenditure of the annual appropriation.

The superintendent of the work, however, is appointed by the Board of

Health, and approved by the mayor. The board can request that the scavenging shall be done to its satisfaction. Notwithstanding the frequent changes in the *personnel* of the board of health, city physician, superintendent, etc., the system has been found in the main to work well. The secret of this is that very few changes are made in the superintendent and those who do the work. All the men employed are fitted by long training for the performance of their duty: all the foremen have been promoted from subordinate positions; few of the laborers have been employed less than five, many have served for twenty, and some for thirty or forty years.

Scavenging includes removal of house effects, — removal of ashes and dry house dirt, cleaning of streets and street catch-basins, and cleaning of privy vaults and cess-pools; for each of these a special and separate provision is made. Offal, meaning refuse food and matter known as swill, is taken daily from hotels, restaurants, etc., and two or three times a week from dwellings, by wagons, each having a driver and helper. The wagons are built by the city, are water-tight, and covered by a wooden lid. They start out at four A. M., first visiting hotels and restaurants; after seven o'clock dwellings are visited. The driver rings at the yard gate or basement door, goes to the swill-tub, empties its contents into his buckets, replaces the tub, and leaves the house. Should no refuse be found, it is assumed that it has been improperly disposed of, and the matter is reported and investigated.

The wagon, when filled, is driven to the department depot, emptied upon a raised platform, and thoroughly washed and scrubbed before making another trip. There is no trouble in getting rid of the material. Regular customers come daily and take it away. The wagons of these parties are numbered and licensed, made water-tight, and the owners made responsible for damage from leakage and other offense. The wagons are also of known capacity, and the material is *paid for* at the rate of five to seven dollars a cord. The sales of last year amounted to about twenty-eight thousand dollars. The cost of collecting and removal was seventy-six thousand dollars. Ninety-six men and forty-five wagons were employed. In sparsely settled suburbs permission is given to private parties to use their swill for feeding hogs, but the superintendent uses his own discretion in such cases.

The larger animals which die upon the streets are removed by a contractor for the privilege of possessing the carcass. The police notify the contractor, who dispatches a cart and removes the body, takes it to an island in the harbor, where every vestige of it is utilized. The business pays well, but the process is very offensive, and the stench is sometimes carried by certain winds three miles to the city. The cost of removing ashes and house dirt last year was ninety-seven thousand dollars.

Privies and cess-pools, five or six thousand of them, are cleaned by a contractor, under the supervision of the Board of Health, at the expense of the householders. Contractors charge from six dollars to eight dollars per load of eighty cubic feet, and are required to use patent odorless excavators. The machines, air-tight, have the air pumped out of them, and suck the contents of the vault for any distance up to one hundred and twenty-five feet through a strong hose. A small charcoal furnace connected with the air-pump destroys any offensive gases. The work is done in the day-time without offense. The material is either taken in scows and dumped into the sea outside the harbor, or carted into the country and buried in pits. Not one load in ten can be sold for manure. So far from its having any manurial value, the city has to pay six dollars a load to have it carted away, when Peruvian guano is selling at fifty dollars a ton.

The sewerage of Boston is good because it is well paid for, three hundred and forty thousand dollars being spent, with a population of three hundred and sixty thousand. The appropriations are controlled by men of experience who are outside of politics.

Dr. Hugh Miller Thompson read a paper on the Disposal of the Garbage at New Orleans. He stated that it was largely used in filling vacant lots.

In a letter to the Board of Health upon the subject of a complaint that a street contractor was "burying dead dogs, etc., in the middle of Jackson and Phillips streets," the administrator of improvements (!) defends himself by saying, "It has been a long-established custom to deposit offal, etc., on vacant squares in the various districts of the city. I believe it to be an advantage to place them on some of the low streets, where, mixed with ashes, etc., they can be used in raising the grade of such streets, and rendering them passable!"

This officer was only carrying out the traditions of his office, doing as everybody else has done, in thus disposing of offal, garbage, and carcasses, and but for the epidemic of 1878, which followed, it might be going on still.

An auxiliary sanitary association was formed last year, and one of the first questions brought to its notice was the disposal of the garbage. The association finally built and presented to the city three scows for this purpose.

A paper on Municipal Sanitation followed, presented by Dr. G. Janeway.

In the afternoon session the time was largely occupied by Dr. A. L. Gihon, medical director of the United States navy, who read a paper entitled The Protection of the Innocent and Helpless Members of the Community from Venereal Diseases and their Consequences.

The general tenor of the discourse may be gathered from the following sentence: —

"The sanitarian may heartily amen the prayer of the earnest follower of the church, who would deter men and women from this as from all other wrongdoing; but while the evil exists, it is his duty to so hedge it in that it may not prove a quicksand to unwary travelers; and we, of this Public Health Association, can no longer evade the serious responsibility which devolves upon us. If it is our mission to wage war upon the dragon, disease, which assails the human race, we must spare none of its brood. We must not slay cholera and yellow fever and typhus and small-pox and the plague, and let syphilis live."

The manner of Dr. Gihon's delivery was much superior to the usual style of those who read from manuscript. The earnestness, and at times eloquence, with which he impressed his hearers testified how zealously he had given the subject his attention. As he brought forward truth after truth, ugly and unwholesome, still truth, the concentrated attention of the audience strongly evinced that he had a large share of their sympathy as well as approbation in undertaking that which most men would shrink from. The applause at the close of his address was hearty and prolonged.

Dr. Sternberg, of the United States army, expressed his approval of the paper, and was followed by Dr. Bailhache, Dr. B. F. Gibbs, and Dr. Campbell, suggesting methods by which the spread of the disease may be prevented.

Immediately on the conclusion of Dr. Gihon's address a motion was made that the president appoint a committee of three who should consider the suggestions or substance of the address, and report at the next meeting resolutions looking to the establishing of a plan for protection from venereal diseases, and also that Dr. Gihon be made chairman of the committee. Adopted unanimously.

The topic for discussion at the night session was the inquiry: May not Yellow Fever originate in the United States? An elaborate paper, entitled An Ætiological Study of the Epidemic at Savannah in 1876, by Dr. Alfred A. Woodhull, United States army, was read by Dr. Ezra M. Hunt, secretary of the State Board of Health, New Jersey.

THIRD DAY.

Dr. Billings was elected president for the ensuing year. Drs. Choppin and Kedzie were elected vice-presidents. New Orleans was selected as the place of meeting in 1880.

Dr. William H. Brewer, president of the Board of Health of Connecticut, opened the day with a paper on Rotten Wood. This was followed by a paper on Cotton as a Fomes, by Dr. T. D. Plunket, president of the Tennessee State Board of Health. His article concluded as follows: —

Much additional testimony could be adduced, if it were thought desirable, to further fortify the assumption that underlies the remarks which have been made above, namely, that cotton, from its peculiarly porous, flocculent nature, is particularly adapted to the absorption or imbibition of the infectious or propagating cause of yellow fever by readily taking up and retaining the atmospheric air of an infected locality, which we are warranted, both by direct and circumstantial evidence, in believing is invariably the vehicle or medium for the transportation of this specific virus. Now, notwithstanding the almost universal opinion among medical men that cotton should rank among the most dangerous class of fomites or materials by which the air and the infection are conveyed from infected localities where yellow fever exists, yet having exhausted all sources of information at our command bearing upon this subject, the strange and remarkable fact is brought to light that not a single case of yellow fever is recorded as having originated from contact with cotton carried from an infected place. Whether this is simply an accidental omission in the chain of evidence regarding this invidious and deadly disease, or whether it indicates an important and valuable scientific truth through which there may yet be discovered to us the fact that in unwrought cotton there is an attribute (in fibre, or volatile oil, or what not), which, like tobacco, neutralizes the virus of yellow fever, and consequently renders it incapable of conveying or communicating that disease, is a question of the greatest moment, and in its solution it becomes matter of the highest significance to the epidemiologist, as well as to commerce itself, which, should these conjectures be verified by further investigation, will be relieved of fully one half of the present embarrassments which beset its pathway in times of pestilence.

However, until this question is finally determined by the introduction of proof which is clear and convincing, the quarantine officer will continue, as he has in the past, and justifiably so, to treat cotton as a probable source of danger in communicating disease in time of epidemic; for with such officers it is a motto, If err we must, then err upon the safe side, or if doubt there be, then give the public the benefit of the doubt.

Dr. G. B. Thornton, president of the Memphis Board of Health, read an article on the Memphis Yellow Fever Epidemic of 1879, which we publish elsewhere in full.

THE EXECUTIVE COMMITTEE.

The following executive committee was elected: Dr. C. B. White, New Orleans; Dr. J. L. Cabell, Virginia; Dr. E. M. Hunt, New Jersey; Dr. J. D. Plunket, Tennessee; Dr. C. F. Folsom, Massachusetts; Dr. A. L. Gihon, United States navy.

The association then adjourned until 7.30 P. M.

The Yellow Fever Quarantine of the Future was treated in a paper submitted by Dr. Henry Frazer Campbell, of Augusta, Ga., of which the following is a synopsis: —

"What shall be our quarantine?" The present quarantine system is impracticable; too cruel for humanity to tolerate. It stupefies the honest convictions of a majority of a profession. Yellow fever is *not* contagious, that is, not communicable from individual to individual; and though the theory of personal contagions is not generally believed in by the profession, yet the same old laws remain on the statute-books.

A quarantine of vessels, and also of railroad trains, should be strictly enforced during the prevalence of yellow fever. Never let a single car that is freighted from or takes passengers in an affected port come to a healthy town. Let them be met at least twenty miles from the city by fresh cars, both for the passengers and the freight. Keep out all baggage, trunks, and clothing, but let the individual come in, *even if the fever is on him.* Do not say to the refugee, fleeing from the dread pestilence, Go back, with your wife and children, to the infected region, and breathe again the foul air laden with the seeds of death. Let the individual be thoroughly disinfected; change his clothing at quarantine ground; even wash his head with carbolic acid, if thought necessary; but let him find refuge in a place of safety. The germs in the body of the man himself are incapable of propagation.

The yellow fever subject is laboring under the dire effects of a poison, but centuries of experience have demonstrated that he can no more communicate his disease by emanations from his own body or secretions than can the subject poisoned with strychnine communicate his frightful tetanus to his friend or his nurse; as the strychnine itself is required to produce another case, so in yellow fever a fresh supply of atmospheric disease germs is required to produce the phenomena.

Dr. Campbell said that though at first he disliked the idea of a national or "central" quarantine, yet in the present state of things it seemed to be imperatively demanded. Some of the state legislatures are controlled by men who actually snarl at the idea of appropriating a mere pittance to the work of sanitation. They refuse to give over $1500 to meet the expenses of the board and to publish its reports, though they are at the same time lamenting the national quarantine and decrying it as a political measure. This alone would make it necessary that Congress should take charge of the matter.

The earliest epidemics of yellow fever occurred at the Northern ports, New York, Philadelphia, Boston, etc.; *afterward* in Savannah, Charleston, etc.; and again, after railroad communication became general, in interior towns. At present the fever does not ravage the Northern cities, though it continues its deadly work in those of the South. Why? Because at the South there has not been the knowledge and foresight to keep it out by appropriate legislation and the enforcement of a proper quarantine.

In reference to the preservation of the disease germs in closed rooms, etc., Dr. Campbell gave it as his belief that such germs do "lie over," but do not retain all of their potency. Yellow fever is an exotic. It finds a soil here where it can produce a fine crop. But the germs then "go to seed," and if not killed by intense cold, but preserved in closed rooms, closets, trunks, etc., may again give rise to a second, but milder epidemic. In the third year the seed run out; they are virtually killed, having neither potency to again produce disease, nor any reproductive power.

Dr. Bell said he had listened with great interest to the papers read and their sentiments. He sympathized deeply with the condition of Memphis, but he felt constrained to say, from his own observation, that he had never seen a city in so abominable a sanitary condition as Memphis. Its condition was revolting, and the people of that city were deeply afflicted. In the epidemic of 1878, 20,000 people had fled from the city. Of the 20,000 that had remained, 17,000 had had yellow fever, and 5150 had filled untimely graves. He believed there was not one who was left in the city who had not his money and his lot with the sick and dying. At such a time there was no opportunity for the removal or even notice of the filth of the city. He did not charge the condition of filth on the people of Memphis. But he earnestly appealed to the association to make it an individual matter to redeem Memphis.

Judge J. W. Clapp, of Memphis, said that he thought they should all be humiliated at the fact that, after two or three days' discussion, this body of physicians and sanitarians was no nearer a conclusion than at first. This pestilence had been ravaging the South for four hundred and fifty years, yet nothing could be found to stay its fell work. He represented in part the people of Memphis. He did not want it to be thought that the people of that city were worse than all others; they were not lepers, living in filth, and going through the cities of the country, hat in hand, as mendicants. Memphis was no filthier, no worse, than plenty of other cities, in sanitary matters. There was the little town of Hot Springs, that, without any filth, had been decimated with the fever in times past. Gentlemen had spoken very wisely and very strongly about Memphis with its filth and rottenness and foul condition, but they did not particularize. Memphis wanted aid; she wanted to avoid the recurrence of the plague, and he called upon this body to say what was to be done. Let the State Board of Health, the National Board, all sanitarians say what Memphis must do, and they would put their shoulders to the wheel. When they knew what it was best for them to do, they would, in God's name, try to do it.

(*To be concluded.*)

FOX'S PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES.[1]

The first two parts of this work met with so great and deserved approval that its continuation has been awaited with interest by those who know the inherent difficulty of illustrating by photography the minute appearances of skin diseases in general. It was feared by these that attempts to represent certain affections not defined in their forms of efflorescence by strong contrasts in color or outline, or by marked elevation above the surrounding integument, must fail. The publication of this series shows that such fears were well founded. Most of the plates are indeed of the same excellence as those of the first two parts, and some of them, if taken upon a larger scale, might be called well-nigh perfect representations. On the other hand, both of those of eczema are poor, and that of E. universale is almost a complete failure, because photography cannot express the diffused hyperæmia, infiltration, or desquamation which form the principal tissue changes in the case chosen for illustration.

The subjects of the plates are fibroma, varicella, zoster pectoralis, Z. lumbalis, eczema universale, leucoderma, chromophytosis (tinea versicolor), favus, and eczema cruris. A clinical history of the cases accompanies the illustrations, and the descriptions of the various diseases are of the same simple and satisfactory character as in the earlier parts.

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RICHET ON THE PHYSIOLOGY AND HISTOLOGY OF THE CEREBRAL CONVOLUTIONS.[2]

Charles Richet is well known to the medical public as one of the rising younger Frenchmen of scientific tastes and ability, already the author of several works of merit. The present book is ably compiled, and would in the original, so far as the translation allows us to guess, commend itself as an attractive summary of observations, many of which are still scattered through journal literature. When this much has been said, however, we think that the work has received all the praise it deserves. Such books fill no important place upon our shelves. Too condensed for the uninitiated, too brief to be of real value to advanced students, they serve for a time as imperfect dictionaries of reference for those who cannot consult the original works, or do not wish the trouble of going to them for their facts, and are then apt to be forgotten. The author gives, it is true, a certain number of interesting original observations, but not enough to save the work from being classed among the "brief summaries." The translation is distinctly poor, and in these days when so much good translating is done there is no excuse for such slipshod work. Smoothness has indeed been aimed at, and for a few pages, perhaps for a few chapters, if he is familiar with the subject, the reader goes on contentedly, and only smiles at the frequent gallicisms. It is not long, however, before he discovers that smoothness *alone* is aimed at, the seeming highway ending in blind and tortuous wood-paths, in which his way is perpetually being lost. So frequent are, furthermore, the evidences of carelessness that the conclusion forces itself upon him that it is only from want of pains on the translator's part that the author's meaning is rendered thus obscure. Such expressions as "anæmied" (for anæmic), "accrued [for increased] arterial tension," "Type Hippocampi," etc., are not gems of style, yet they might be pardoned if it were not that they are found in the company of more serious blunders, by which the sense of whole passages is marred.

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[1] *Photographic Illustrations of Skin Diseases.* By George Henry Fox, M. D. New York: E. B. Treat. Parts III. and IV.

[2] *Physiology and Histology of the Cerebral Convolutions; also, Poisons of the Intellect.* By Charles Richet, A. M., M. D., Ph. D. Translated by Edw. P. Fowler, M. D. New York: Wm. Wood & Co. Pp. 170.

The second division of the book — on Poisons of the Intellect — is a popular description of the action of the principal narcotics, such as might have been written for the *Revue des Deux Mondes.* It contains genial, telling accounts of the different forms of intoxication, but does not pretend to reflect our scientific knowledge of the subject.

J. J. P.

THE SKIN AND ITS TROUBLES.[1]

This is one of the Health Primers, a series of popular and brief chapters on hygiene by English writers. It is prepared in the same style as the numerous existing popular treatises on the same subject, but is in no way superior to them except in point of brevity. It reflects naturally the prevailing professional opinions of the English regarding the nature and causes of skin diseases. It is in a handy form, and contains valuable information for lay readers.

BOSTON CITY HOSPITAL TRAINING SCHOOL FOR NURSES.

We took occasion months since to call the attention of our readers to the radical changes which had taken place at the City Hospital, and pointed out many of the improvements resulting in sanitary, executive, and economic reforms. This era dates from the time the new buildings were added, and the old ones remodeled, in 1876, when the hospital doubled its capacity. The internal management at that time was greatly improved, and warranted us in calling it the "new" City Hospital. Since then the hospital has accomplished the good work we expected of it, both as to its increased quantity and quality, and the good results have fully justified the expenditure of the public money.

This improvement has been steady and progressive, as all the profession who have been familiar with its workings can fully testify, and we now desire to call the attention of those less familiar to what has become an integral part of the hospital, — its Training School for Nurses.

The medical profession of America has been keenly alive to progress in all branches and specialties. Since "good nursing is half the battle," it is certainly surprising that until the present decade no satisfactory experiment has been made to establish a school for the systematic and thorough education of nurses. The "Nurse Society," established by the Friends at Philadelphia, in

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[1] *Health Primers. The Skin and its Troubles.* New York: D. Appleton & Co. 1879.

1839, has done much to give aid and relief to the out-door poor, and the various sisterhoods in the Roman Catholic Church have done noble and self-sacrificing work in connection with their various charities; but the fact remains conspicuous, that no organized school has been ready to receive competent women desiring to learn the science of nursing. In 1873, a small but well-grounded school was commenced at the Bellevue Hospital, in New York, which has since grown to full proportions. Others were successively started, and now there are ten worthy to claim the dignity of training schools, including, in this vicinity, those at the Massachusetts General Hospital and at the New England Hospital for Women and Children.

The City Hospital Training School was opened in January, 1878, and though organized under many difficulties, it has fully entered upon its course. It would be trite to present to our readers the advantages of good and rational nursing; but they are apparent when we contrast the insecurity of trusting to a "born nurse" upon which the profession formerly depended, with the safety, comfort, and intelligent care resulting from the employment of an educated and disciplined nurse.

Dr. Gross, in his annual address before the American Medical Association, in 1869, said: —

"In public institutions in the United States ignorance among nurses prevails, superadded not infrequently to the basest moral delinquencies, as intemperance, indifference to duty, and positive disregard of the orders of the medical attendant. Male nurses are everywhere notoriously bad and incompetent. Drunkenness and male nursing are almost synonymous terms in the experience of the American physician."

The City Hospital has shared this experience. Under the new régime, by placing the sick in the care of the school, results have already been secured, good care and nursing insured, the mortality diminished, an improved moral tone and prestige won for the hospital. The hospital has accommodations for 385 patients, and its fifteen wards, excepting that for male patients with infectious diseases, are all in the hands of the Training School.

Probably no general hospital in New England has such excellent advantages for a Training School, since it is one of the largest, having all departments found in general hospitals, except that for lying-in patients. It has excellent accommodations for private as well as charity patients, has the advantage of a large and rapidly changing population, and is established and maintained as a hospital for acute diseases.

The school is modeled on the general plan of similar training schools. The pupils are put upon probation; then, if found worthy, they pledge themselves to remain two years. This service includes the male and female surgical wards, male and female medical wards, children's, ophthalmic, and uterine wards, and that for infectious diseases of women. Instruction is given by the superintendent of the school, as well as by the head-nurses, in all the general principles and details, which large experience has proved to be useful in the care of the sick. The nurses are required to study specified text-books on nursing. Lectures are given by the superintendent, and by gentlemen of the the hospital staff, whose names are distinguished in the various branches of the practice of medicine. Pupils are required to take notes on the lectures, on the recitations, and on bed-side observation, and these notes are subsequently examined. Practical work is done under the most favorable circumstances, as they are constantly serving as nurses to the sick. The individual character of each nurse is carefully studied; right tendencies and capabilities are stimulated; moral obliquities are pruned, and an *esprit de corps* is infused into all. The sum total of the two years' advantages, if honestly and thoroughly improved, entitles the pupil to a diploma, and produces a nurse competent, trustworthy, and educated for her work.

We are informed by those fully competent to judge that the class of women seeking education in the Training Schools of America is much superior to that found in the English and European schools, and it is the testimony of those entrusted with this work here, that every year a better class is applying for admission.

It seems to us incumbent upon the profession at large to assist in this work, by directing the attention of women well adapted by nature and general education to this new field of labor, which is both remunerative and honorable. We can thus only rescue the sick from the hands of the ignorant but well-meaning mischief-maker.

We congratulate our citizens that the Trustees of the City Hospital have used so available an opportunity for such a good purpose, and adopted such a liberal policy towards the school, and we can confidently hope that in their hands the school may be an additional benefit to the sick of our community, and add to the debt of gratitude the public already owes that great charity.

THE INTERNATIONAL MEDICAL CONGRESS AT AMSTERDAM.

An exceedingly interesting letter from the London correspondent of the *Louisville Medical News* indicates that the recent Medical Congress at Amsterdam was a very brilliant success. Socially it was rendered most agreeable by the proverbial hospitality of the Dutch. Its president was the eminent Donders, a man of scientific reputation, of polish, tact, and distinction of manner; moreover, an accomplished orator. He was most ably seconded by his secretary, Dr. Guye, of Amsterdam. Of the seven international congresses thus far held, this was the most successful. It was largely attended by foreigners from all parts of the world. Sayre, of New York, and Turnbull, of Philadelphia, were the most active of the American visitors. The congress was opened by an eloquent address in French by Professor Donders, during which, in a most complimentary allusion to France, he boldly intimated that the countrymen of Claude Bernard would have been less disposed to attribute to him the foundation of general physiology if they had been able to do justice to the labors of Henle, Moleschott, Mulder, and Robert Mayer.

At a public reception, given by the burgomaster, Professor Sayre recalled the fact that New York was once called New Amsterdam. "We come, therefore," he said, "to our mother; and we recognize that for the solidity of character, the perseverance, the culture, and the honor inherent in the highest types of Dutch character, the New Amsterdam, now New York, owes an imperishable debt of gratitude to the old Amsterdam, which now welcomes representatives of America to this congress." The Dutch papers, on the following day, reproduced these words in English as well as in Dutch, "fearing lest they might lose the felicitous charm which had produced so great an effect."

Subsequently in the surgical section Sayre demonstrated his method of treating spinal curvature. Two cases were brought in, one of them wearing Taylor's apparatus. After the jackets had been applied, "not only was there a palpable increase of height and considerable rectification of the deviation of the spine, but the patients expressed great relief."

Mr. Lister was received with an enthusiasm "perhaps unprecedented;" the whole assembly rose, waved hats and handkerchiefs, and for several minutes interrupted the proceedings by shouts of "Lister!" with *vivats* in all languages. Lister delivered a brilliant address in French without notes. It was "a victorious reply" to Mr. Savory's objections to his method.

"There was one rather amusing incident which has not attracted much attention, and which is not without its significance. Mr. Lister is well known as a very hot opponent of the admission of women to the practice of medicine, and has invariably declined to take part in any proceedings to which they were admitted. On this occasion several ladies — M. D.'s of various universities — were present, and their presence by no means appeared to disconcert him, since he explained with a good deal of minuteness the proceedings by which he was enabled to demonstrate that animal fluids preserved from contact with atmospheric germs remain unaltered, without any commencement of the putrefactive process. One of these procedures consisted in carefully cleansing the *glans penis* with a solution of carbolic acid, and using it as a sort of stopper to a narrow-mouthed glass vessel rendered antiseptic by heat and other precautions, and causing the urine to be passed in this way directly into the antiseptic glass bulb, which was at once stoppered with a thick layer of cotton-wool. Under these conditions he said the urine would remain for an indefinite length of time free from putrefactive process."

Professor Virchow's address on Medical Education formed the principal attraction of the last general meeting. It was, however, rendered so dull by the manner of delivery that only their profound respect for the reader kept the audience in their seats. Somewhat later Virchow redeemed his reputation as an orator of great fire by a superb extemporized address to the students of Amsterdam on the occasion of their torch-light procession and welcome to the association at its final banquet.

Dr. Sayre gave a dinner to fifty of the leading personages of the congress. The speeches were eloquent, the dinner was good, and left upon the minds of the guests an agreeable impression of American courtesy. Dr. Warlomont, of Brussels, took this opportunity of doing justice to the untiring energy with which Dr. Seguin, of New York, year after year, has brought forward the necessity of uniformity of weights and measures, thermometrics, prescriptions, and other medical records. This warm tribute drew from Dr. Seguin a reply full of earnest feeling. Afterward, in general meeting, he asked for the formation of an international commission, for the purpose of obtaining uniformity in medical records. A committee was accordingly appointed, and comprised delegates from Amsterdam, Paris, Belgium, Florence, New York, and London.

Hueter's dermatophone and telephone were among the novelties demonstrated. The electrical polyscopes of Trouvé, of Paris, showed that it is possible to illuminate the bladder and stomach. They are especially useful in studying diseases of the posterior nares. Professor Donders gave precise rules and formulæ for the investigation of color-blindness. Bouchut, of Paris, exhibited a vegetable pepsine, obtained by Professor Wurtz and himself from the papaya of Java and South America, in which countries it has long been used for the purpose of making meat tender.

The general success of the meeting has produced a strong impression in England and France, especially the former, where the remarkable reception accorded to Professor Lister will exert a lasting influence upon the schools of London, in which city Lister has heretofore been treated by his colleagues with marked coldness. This cosmopolitan verdict, it is thought, will oblige them to give more attention to his teachings and example.

The next congress will meet in Great Britain. For this imperfect synopsis we are indebted to the correspondent already mentioned.

MEDICAL NOTES.

— We extract the following from the *British Medical Journal:* MM. Bergeron and Montano (*Annal. d'Hygiene*) have arrived at the following conclusions on the subject of death by drowning: (1.) The presence of frothy foam, not only in the pharynx and larynx, but also in the bronchi, is the constant sign of death by submersion, whether syncope or asphyxia predominated in the mode of death, and whether the individual was free in his movements, or was thrown into the water after having been made insensible by opium or chloroform, or was partly suffocated, or was fettered in his action. This absolute constancy of the presence of foam, whatever the special condition in which the submersion occurred, is, in the opinion of the authors, the single sure uniform sign proving death by drowning. (2.) There is always a certain degree of congestion, and sometimes subpleural ecchymoses are seen; but these ecchymoses, which give the lungs a spotted or speckled look, are unlike the punctate ecchymoses of suffocation. (3.) The intensity of the hyperæmia and the extent of the ecchymoses are always in proportion to the efforts of the animal whilst struggling against submersion. It is the same also with the human subject, as has been verified in all necropsies made by the authors at the morgue in Paris during the last ten years. At a necropsy this fact shows whether or not the individual struggled long and vigorously during the act of drowning.

— During his vacation last summer, Sir Henry Thompson established himself for two months in Paris, where he and his daughter worked hard at painting from ten A. M. to five P. M., under the teaching of a distinguished Parisian artist.

— Dr. Morris Longstreth, of Philadelphia, has been chosen one of the attending physicians of the Pennsylvania Hospital, in the place of the late

Dr. Meigs. His many friends will be pleased to learn of this complimentary and well-earned appointment.

— A London correspondent of the Louisville *Medical News* writes that "Nothing could be more inhospitable or worse managed than were the congresses of last year in Paris, where guests were wholly neglected, private hospitality being apparently an unknown factor of such meetings." The international Medical Congress of this summer at Amsterdam, he says, was a brilliant success. Guests were treated with lavish hospitality.

— The distinguished dermatologist, Professor Hebra, has been made a Hofrath, on account of the great services he has rendered to science.

NEW YORK.

— Dr. Freeman J. Bumstead died in New York on November 28th, after a protracted illness. The funeral was held at St. Ignatius's Church, in West Fortieth Street, on December 2d, and the interment took place at Mount Auburn.

Dr. Bumstead was born in Boston, April 21, 1826. He was educated in the High and Latin schools, and in 1843 entered Williams College, and was graduated among the first in his class. Immediately upon leaving college he began the study of medicine, attending lectures at the Tremont Medical School. In 1847 he entered the medical department of Harvard University, going abroad, however, the following year, and spending his time in the hospitals of London and Paris. Upon returning to America in the autumn, he was appointed house-surgeon to the Massachusetts General Hospital, and in 1851 received his degree of doctor of medicine from Harvard. In 1852 Dr. Bumstead settled in New York, and began the general practice of medicine. In 1853 he was appointed surgeon to the Northwestern Dispensary, which position he filled for two years. He was appointed to the staff of surgeons to the New York Eye and Ear Infirmary, remaining connected with that institution and St. Luke's Hospital for a number of years. From 1868 to 1871 Dr. Bumstead was professor in the College of Physicians and Surgeons, resigning in 1871 to go abroad with his family, where he spent two years in extensive travel, visiting the hospitals and medical schools in Great Britain and Continental Europe. During the last years of his life he was engaged in revising and enlarging his treatise on Venereal Diseases. He completed this work, revising the last of the proof-sheets since the beginning of his illness. Last summer Williams College conferred upon him the degree of LL. D. At the time of his death he was the president of the New York County Medical Society. The early death of so valuable a member of the profession is to be most deeply deplored. The excellence of his work, especially in its last edition, is so freely accorded that, had he lived, his gratification would doubtless have been commensurate with his labors which have produced a worthy monument to an honored career.

— At the last meeting of the Academy of Medicine Dr. A. Jacobi read a paper on the Children's Department of Mount Sinai Hospital, in the course of which he related a case of catalepsy occurring in a child of three years of age, who was suffering from typhoid fever, and stated that he believed it to be the earliest age at which catalepsy had ever been known to occur. He also alluded incidentally to a case of typhoid fever in a child at Bellevue Hospital in which extensive ulcerations took place, and death was caused by perforation of the intestine, without any diarrhœa whatever. A specimen exhibiting the lesions was presented for inspection.

— At the last meeting of the Farmers' Club, held at the Cooper Institute, Dr. J. Blake White, inspector of milk of the board of health, read a paper on commercial milk. In the course of it he said that three fourths of city-born children were supported on artificial food, and that cow's milk was the only proper substitute for human milk; while he believed that the milk of several healthy cows was better than that of one cow exclusively. He alluded to the conditions affecting milch cows, such as food, exercise, water, age, season, breeding-time, the number of calves, the character of the stable, and the treatment received from the milker. The best milk, he said, came from grass-fed cows, and in winter it was important that the cows should be given food containing nitrogenous and phosphatic ingredients. In concluding his address he defended the use of the lactometer as used by the officers of the board of health, and said that it was as valuable as analysis in the detection of adulteration. On the other hand, it is contended by a recent writer that no real lactometer has ever been officially used in New York to test milk, although is is sometimes used by consumers, the instrument in use by the board of health being a common hydrometer, that simply measures specific gravity. The lactometer employed in England, France, and Germany, he says, is a graduated tube, into which milk is poured, where it is allowed to stand for a certain length of time, when the quantity of cream — the only fine test of purity that is possible except by analysis — is noted. He furthermore claims that the present so-called test of the board is not only a direct premium upon fraud, but in the case of cows giving rich milk, such as Jerseys and Alderneys, renders fraud absolutely necessary in order that the milk may pass inspection. The milk of a Jersey cow, which gives a lactometer test of .37, or "a pound of butter to six quarts," he says, shows a specific gravity that would render it liable to seizure as impure. Skim off the cream, however, and its specific gravity is raised above the standard.

— One fatal case and several other serious cases of poisoning by verdigris have just occurred in this city from the eating of lemon *meringue* pie, the verdigris having gotten into the *meringue*, as it is supposed, from the copper vessel in which it was prepared.

— On the 20th of November, Surgeon-General Wm. A. Hammond, United States army (retired), gave a very large reception in honor of Dr. P. S. Wales, the new surgeon-general of the navy. About five hundred guests, including many distinguished men of all professions, were present. Since then Commodore Nicholson has entertained Dr. Wales at the Brooklyn navy yard.

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LITERARY NOTES.

— The Transactions of the Medical Society of New Jersey for 1879 contains, among other articles, one entitled the Criminal Use of Chloroform, by P. V. P. Hewlett. We make the following quotation: —

"The conclusions, then, to which we are led from the foregoing remarks, brief and desultory as they are, are, in the first place, that chloroform may possibly be administered to produce insensibility under certain favorable conditions to those who are sleeping, such conditions being a pure agent, a certain length of time to allow the administration to be conducted slowly, a knowledge and experience of its methods of administration on the part of the administrator, and a certain idiosyncrasy on the part of the system of the victim, — conditions which it is highly improbable will be combined on the occa,sion of a criminal attempt. The absence of any well-authenticated case renders the improbability almost an impossibility; sufficiently so, at least, to authorize us in treating the report of such cases with the gravest suspicion. In all such cases any inconsistency should be accepted as indicating studied deception or complicity in the crime, rather than honest delusion. Secondly, that the alleged cases of anæsthesia produced by displacing the atmosphere with chloroform vapor are not founded upon fact, but are highly imaginative. In the third place, that the production of anæsthesia at once by a handkerchief held near the mouth to waking persons without their knowledge is an utter impossibility, and that the reported cases exist only in the minds of the relaters, who usually have a motive to conceal some disreputable acts of their own."

— The Transactions of the Indiana State Medical Society contains an earnest appeal from its president, Dr. Newland, for the establishment of a board of health.

— A very interesting report of a case of Retro-Pharyngeal Sarcoma, by Dr. F. I. Knight, was read at the first annual meeting, of the American Laryngological Association, and is reprinted from the St. Louis *Medical and Surgical Journal.* The infrequency of such growths and the difficulties which attend operative interference were discussed by the association.

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CHILD-BIRTH IN AMERICAN WOMEN.

Mr. Editor, — In your journal of October 2d is a communication from Dr. Nathan Allen, of Lowell, in which, among other things of similar import, he says: "The German, English, Scotch, and Irish women do not suffer the ill effects of child-bearing to the same extent as do our American women." Is this so? In one of the reports of Dr. Snow, of Providence, referring to the statistics of that city, he says something like the following: These statistics show that in all the fatal results connected with child-birth, and including puerperal fever, puerperal convulsions, and still-born children, the foreign-born women suffer much more, both actually and proportionally, than the women of American birth.

I do not quote his words, but give the idea. I am unable at this moment to refer to the report named, but have before me the City Registrar's Report of Providence for the Year 1878, in which I find the following facts, which seem to confirm the statement of Dr. Snow as given above: —

"In the twenty-three years, from 1856 to 1878 inclusive, 20,204 mothers of American birth and 23,139 of foreign birth bore children in Providence. Of the mothers of American birth 150 or 0.74 per cent., and of the mothers of foreign birth 209 or 0.90 per cent., died from the accidents connected with child-birth, including puerperal fever and puerperal convulsions. Here is a large excess of foreign mothers, actual and proportional. Nearly all the foreign mothers seem, from the report, to be Irish, English, Scotch, or German; some British American and Portuguese.

"With regard to still-born children, in 1878, there were 1273 children born of American-born mothers and 1354 born of mothers of foreign birth in Providence; of the latter, 882 were mothers born in Ireland, and 472 born in other foreign countries." Now look at the proportions: Of the 1273 children born of American-born mothers, 61 or 4.79 per cent. were still-born; of the 882 children born of Irish mothers, 64 or 7.26 per cent. were still-born; of the whole number, 1354 children born of foreign mothers, 78 or 5.76 per cent. were still-born. We see here that the foreign-born mothers, and especially the Irish mothers, have a much greater actual and proportional number of still-born children than the mothers of American birth. All the statistics given go to show that Dr. Allen is mistaken in his opinion as quoted. V.

REPORTED MORTALITY FOR THE WEEK ENDING NOVEMBER 22, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Lung Diseases	Diphtheria and Croup.	Scarlet Fever	Typhoid Fever.
New York	1,085,000	471	198	20.59	22.29	9.57	2.97	.43
Philadelphia	901,380	254	69	13.78	8.27	3.94	3.55	5.12
Brooklyn	564,400	191	73	21.99	14.66	13.09	—	.52
Chicago	—	180	83	29.44	10.56	13.89	10.00	2.78
St. Louis	—	110	29	22.73	10.00	9.09	—	2.73
Baltimore	393,796	124	40	29.84	5.65	9.68	9.68	6.45
Boston	360,000	142	47	26.06	12.68	13.38	2.82	2.11
Cincinnati	280,000	80	30	21.25	12.50	6.25	6.25	1.25
New Orleans	210,000	89	—	15.73	6.74	2.25	—	2.25
District of Columbia	170,000	—	—	—	—	—	—	—
Cleveland	160,000	57	25	31.58	5.26	15.79	15.79	—
Pittsburgh	—	52	24	32.69	5.77	13.46	5.77	3.85
Milwaukee	127,000	27	10	37.04	3.70	33.33	—	—
Providence	101,500	45	15	37.78	6.67	2.22	31.11	2.22
New Haven	60,000	18	3	16.67	5.56	16.67	—	—
Charleston	57,000	30	7	10.00	10.00	3.33	—	3.33
Nashville	27,000	11	—	27.27	—	—	—	9.09
Lowell	53,300	12	3	16.67	—	8.33	8.33	—
Worcester	52,500	15	4	6.67	6.67	—	—	—
Cambridge	50,000	13	5	15.38	—	15.38	—	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	11	5	27.27	9.09	18.18	9.09	—
Lynn	34,000	12	2	33.33	—	16.67	—	8.33
Springfield	31,500	12	—	16.67	—	16.67	—	—
New Bedford	27,000	13	3	30.77	7.69	15.38	15.38	—
Salem	26,400	8	1	25.00	25.00	12.50	—	—
Somerville	23,350	4	—	50.00	—	25.00	—	25.00
Chelsea	20,800	6	2	—	—	—	—	—
Taunton	20,200	4	—	—	—	—	—	—
Holyoke	18,200	10	6	40.00	10.00	—	30.00	—
Gloucester	17,100	3	—	—	—	—	—	—
Newton	17,100	5	1	40.00	20.00	20.00	20.00	—
Haverhill	15,300	2	—	50.00	—	—	—	50.00
Newburyport	13,500	4	1	—	—	—	—	—
Pittsfield	12,650	2	1	—	—	—	—	—
Fitchburg	12,500	3	2	66.67	—	—	—	—
Milford	9,800	4	1	50.00	—	—	—	—

Two thousand and twenty-four deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 461, consumption 317, lung diseases 246, diphtheria and croup 197, scarlet fever 96, typhoid fever 46, diarrhœal diseases 44, malarial fevers 24, cerebro-spinal meningitis 14, whooping-cough 14, erysipelas 14, measles 12, small-pox none. (In addition, District of Columbia reports 13 deaths from consumption, 12 from lung diseases, three from diphtheria and croup, two from malarial fevers, one each from scarlet fever and typhoid fever, — total deaths not given. From *scarlet fever*, Chicago 18, Providence and New York 14, Baltimore 12, Philadelphia and Cleveland nine, Cincinnati five, Boston four, Pittsburgh and Holyoke three, New Bedford two, Lowell, Lawrence, and Newton one. From *typhoid fever*, Philadelphia 13, Baltimore eight, Chicago five, St. Louis and Boston three, New York, New Orleans, and Pittsburgh two, Brooklyn, Cincinnati, Providence, Charleston, Nashville, Lynn, Somerville, and Haverhill one. From *malarial fevers*, New York seven, St. Louis five, Brooklyn and New Orleans three, Cincinnati two, Chicago, Baltimore, Boston, and Milwaukee one. From *cerebro-spinal meningitis*, New York three, St. Louis, Boston, Pittsburgh, Nashville, and Milford two, Fitchburg one. From *whooping-cough*, New York four, Boston three, Brooklyn and New Orleans two, St. Louis, Baltimore, and Lynn one. From *erysipelas*, New York four, Philadelphia, Baltimore, and Boston two, Brooklyn, Chicago, St. Louis, and Pittsburgh one. From *measles*, New York eight, Chicago three, Philadelphia one.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Nov. 16	29.909	50	58	44	78	52	54	55	SW	W	W	9	20	14	C	F	C	0.50	.02
" 17	30.245	46	52	39	74	41	61	59	W	NW	NW	10	10	4	C	F	C	—	—
" 18	29.948	35	46	28	92	100	100	97	NE	NE	N	10	18	24	R	R	S	18.00	.90
" 19	29.944	33	37	25	76	70	61	69	NW	W	S	10	4	9	Cl'g	O	O	1.30	.01
" 20	29.306	29	41	20	100	100	87	96	E	NW	W	12	12	20	R	S	F	15.05	.29
" 21	29.954	13	23	10	61	53	40	51	NW	W	W	34	28	8	F	C	C	1.40	.01
" 22	30.305	24	33	9	80	48	63	64	W	S	S	6	6	9	C	C	F	—	—
Week.	29.944	33	41	25				70		W		2265 miles.						87.08	1.23

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending November 1st, in 149 German cities and towns, with an estimated population of 7,525,566, the death-rate was 22.2 against 23.7 of last week. Three thousand two hundred and fifteen deaths were reported: consumption 421, acute diseases of the respiratory organs 268, diarrhœal diseases 268, diphtheria and croup 143, typhoid fever 69, whooping-cough 74, scarlet fever 71, measles 28, puerperal fever 11, small-pox one. The death-rates ranged from 9.2 to 42.3.

For the week ending November 8th, in the 20 English cities, with an estimated population of 7,383,999, the death-rate was 22.1 against 21.9 of the previous week. Three thousand one hundred and twenty-nine deaths were reported: scarlet fever 192, measles 105, fever 60, diarrhœa 53, whooping-cough 51, diphtheria 25, small-pox three (London). The death-rates ranged from 14.8 to 30.1.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 22, 1879, TO NOVEMBER 28, 1879.

Keeney, C. C., lieutenant-colonel and surgeon. Relieved from duty at the Presidio of San Francisco, and assigned to duty in San Francisco, California. S. O. 142, Division of the Pacific and Department of California, November 15, 1879.

Kimball, J. P., captain and assistant surgeon. To return with the command of Colonel Merritt, Fifth Cavalry, to Rawlins, Wyoming Territory. S. O. 107, Department of the Platte, November 20, 1879.

Hall, J. D., captain and assistant surgeon. His sick leave, granted him from headquarters Department of Texas, extended one month on surgeon's certificate of disability, with permission to leave the Department of Texas. S. O. 266, A. G. O., November 25, 1879.

LIST OF CHANGES IN THE MEDICAL DEPARTMENT OF THE NAVY DURING THE WEEK ENDING NOVEMBER 28, 1879.

Medical Inspector A. C. Gorgas, Passed Assistant Surgeon George P. Bradley, and Assistant Surgeon N. H. Drake detached from the U. S. S. Hartford and waiting orders.

Passed Assistant Surgeon J. H. Hall detached from the U. S. S. Marion and ordered to coast survey duty.

Assistant Surgeon C. W. Rush detached from the receiving ship at New York and ordered to the U. S. S. Marion.

Assistant Surgeon E. H. Marstelier ordered to the receiving ship at New York.

Passed Assistant Surgeon J. H. Gaines detached from the Bureau of Medicine and Surgery and ordered to the U. S. S. Tennessee.

Passed Assistant Surgeon W. A. McClurg detached from the Naval Hospital, Washington, D. C., and ordered to the U. S. S. Tennessee.

Assistant Surgeon A. C. H. Russell detached from the Naval Hospital, Mare Island, and ordered to the U. S. S. Pensacola.

Assistant Surgeon Frank C. Dale detached from the U. S. S. Pensacola and ordered home and wait orders.

Books and Pamphlets Received. — Report of the Adams County Medical Society. By J. W. C. O'Neal, M. D. (From the Transactions of the Medical Society of Pennsylvania.) Philadelphia. 1879.

Diphtheria. By John H. Gilman, M. D., of Lowell. A Paper read before the Massachusetts Medical Society, June 12, 1879.

American Health Primers. The Mouth and Teeth. By J. W. White, M. D., D. D. S., Editor of the Dental Cosmos. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

Wood's Library of Standard Medical Authors. Infant Feeding and its Influence on Life, or the Causes and Prevention of Infant Mortality. By C. H. F. Routh, M. D., M. R. C. P. L., Fellow of University College, London, etc. Third Edition. New York: William Wood & Co. 1879.